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## THE VALUE OF HUMAN LIFE IN GLOBAL WARMING IMPACTS – A COMMENT

SAMUEL FANKHAUSER<sup>1</sup> and RICHARD S.J. TOL<sup>2</sup>

<sup>1</sup> World Bank, and <sup>2</sup> Institute for Environmental Studies, Vrije Universiteit Amsterdam, De  
Boelelaan 1115, Amsterdam, the Netherlands

*The views expressed are the authors' and do not necessarily represent those of the  
World Bank Group*

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Philip Fearnside (1998) raises the by now well-known issue of how to assess climate-change induced changes in human mortality. Others did so before (e.g., Hohmeyer, 1996; Massood, 1995; Meyer, 1995; Pearce, 1995), and we have participated in the ensuing debate with a series of articles (e.g. Fankhauser *et al.*, 1997, 1998). A thorough discussion of this delicate issue is important, though, and we are grateful for the opportunity to respond to Fearnside's comments.

Fearnside puts forward a new way of dealing with mortality risks. He proposes to report climate change impacts as  $\$ X + N$  deaths. This would presumably imply decision making on the basis of a simple form of multi-criteria analysis. Some analysts may feel more comfortable within this framework. But in our opinion it ducks the issue. The issue is whether we should spend  $\$ Y$  on emission abatement to avoid some of the  $N$  deaths, and how these avoided deaths compare to  $\$ Y$  not spent on education, health care, or luxury cars.

Making judgements on this issue – we would argue – requires a careful trade-off between the pros and cons of the suggested course of action. To assure transparency in this trade-off, accountability for the decision taken, and consistency with decisions on other projects, the trade-off has to be made as explicit as possible. This requires quantification of all aspects, and expression of them in a common metric. Fearnside's suggestion does not provide this. Economists typically use money as they common metric. This is simply a choice of convenience, however. There is nothing deeper to it.

Unfortunately, Fearnside's note also repeats some of the misconceptions of the earlier debate. In particular he completely misreads what is actually meant by the term 'value of a statistical life'. Nobody, not even economists, would try to value the 'pain [people feel] on losing their loved ones'. What we can do, however, is observe, and learn from, the risks people take in their every day lives. The difference is crucial. We neither valued life as such, nor were values 'decided by researchers' as Fearnside claims. The values of a statistical life used in our and similar work is based on empirical studies of how people value safety themselves. This is consistent with the belief of most economists that social decisions should



be based on individual preferences. Estimates were derived from the preferences revealed by large groups of economic actors, for example when they buy safety equipment, or accept occupational hazard in return for a higher pay.

People's willingness to accept compensation for a higher risk is a function of their income. This is a fact of life, as are, unfortunately, large income differences. The values of a statistical life used by us and others reflect this reality. Thus, a risk to a poor person is valued less than the same risk to a rich person.\* One may find this objectionable, but what one actually objects to in this case is the underlying distribution of income. We, too, object to that. But we also think that fighting causes is better than fighting symptoms. Tinkering with revealed preferences will not improve the plight of the poor – in fact overestimating the value of statistical lives could even lead to an undesirable reallocation of funds away from poverty alleviation. There are better ways of redistributing income than via global warming.

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\* Consequently, risk to future people are valued higher than risks to current people. Fearnside mistakenly interpreted our article to suggest that therefore future studies of climate change impacts would arrive at higher estimates.